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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,555	11/09/2001	Fernando Ortega Rodriguez	Q66984	5908
23373	7590	11/17/2008	EXAMINER	
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			ART UNIT	PAPER NUMBER
			2424	
			MAIL DATE	DELIVERY MODE
			11/17/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/29/08 has been entered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation of the uplink channel being open while the downlink channel is transmitting could not be found in the specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2424

Claims 19 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. Specifically the claims appear to be non-structured random limitations without any details about how the limitations would be applied to the independent claims of which they depend from.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-8, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adiwoso in view of Schiff in view of Saunders.

Referring to claim 1, Adiwoso discloses an integrated multispot satellite communication system in a multimedia broadcasting network with a return channel (figure 1; column 3, lines 35-48), comprising:

a satellite that receives a multimedia broadcast signal from a provider and transmits said multimedia broadcast signal to a user in response to a request from said user (column 3, lines 43-48);

Art Unit: 2424

a network controller that receives different return channels from said user and said provider, via said satellite (column 4, lines 30-32, 36-38, and 48-53), wherein a signaling part of said multimedia broadcast signal is addressed from said provider to said network controller (column 9, lines 57-65).

Adiwoso does not disclose a system with common means of burst synchronization such that the transmission rate in a downlink direction from the satellite is a whole multiple of a clock reference of said network; wherein different uplink channels from a service provider and a user are inserted into a downlink signal in a synchronous manner, such that a period of the downlink frame is equal to a period of the uplink frame;

and wherein while the uplink channels are open and the downlink signal is being transmitted.

In an analogous art, Schiff teaches a system with common means of burst synchronization (column 7, lines 18-23) such that the transmission rate in a downlink direction from the satellite is a whole multiple of a clock reference of said network (column 4, lines 65-67; figure 5; Note: The I Frame shown in figure 5 is interpreted as being the period of the downlink transmission. With this information one can see that 3 sets of information are sent within the downlink period. As the applicant has noted the transfer rate is equal to the amount of data sent divided by the period ( $N_d/T_{df} = R_{td}$ ). Therefore the rate would be equal, in this case, to 3 times the frequency (where frequency is equal to  $1/T_{df}$ ); wherein different uplink channels from a service provider and a user are inserted into a downlink signal in a synchronous manner, such that a

Art Unit: 2424

period of the downlink frame is equal to a period of the uplink frame (column 3, lines 55-58; column 3, lines 1-5; column 3, lines 19-22; Note: as Adiwoso discloses a plurality of types of earth stations, it would have been obvious for one of ordinary skill in the art to interpret the master station as the provider while the other stations are the users.).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the synchronization method taught by Schiff to the system disclosed by Adiwoso. The motivation would have been to enable multiple users to transmit upstream to the satellite on the same frequency, thereby allowing for more efficient usage of bandwidth while insuring proper synchronization (Schiff: column 3, lines 1-5).

Schiff and Adiwoso do not disclose a system wherein while the uplink channels are open and the downlink signal is being transmitted.

In an analogous art, Saunders teaches a system wherein while the uplink channels are open and the downlink signal is being transmitted (column 5, line 66 to column 6, line 4).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the simultaneous transmission taught by Saunders to the system disclosed by Schiff and Adiwoso. The motivation would have been to enable the uplink data to only be transmitted when the system was synchronized to make sure that the uplink channels are only transmitted in their allotted spots.

Claim 5 is rejected on the same grounds as claim 1.

Art Unit: 2424

Referring to claim 2, Adiwoso does not disclose a system according to claim 1, wherein said satellite is configured to generate said network clock reference.

In an analogous art, Schiff teaches a system according to claim 1, wherein said satellite is configured to generate said network clock reference (column 5, lines 27-31).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the synchronization method taught by Schiff to the system disclosed by Adiwoso. The motivation would have been to enable multiple users to transmit upstream to the satellite on the same frequency (Schiff: column 3, lines 1-5).

Claim 6 is rejected on the same grounds as claim 2.

Referring to claim 3, Adiwoso does not disclose a system according to claim 2, further comprising a multiplexer.

In an analogous art, Schiff teaches a system according to claim 2, further comprising a multiplexer (figure 3).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the synchronization method taught by Schiff to the system disclosed by Adiwoso. The motivation would have been to enable multiple users to transmit upstream to the satellite on the same frequency (Schiff: column 3, lines 1-5).

Referring to claim 4, Adiwoso does not disclose a system according to claim 3, characterized in that said multiplexer inserts in the synchronous manner the different uplink channels from the service provider and the user into the downlink signal.

Art Unit: 2424

In an analogous art, Schiff teaches a system according to claim 3, characterized in that said multiplexer inserts in the synchronous manner the different uplink channels from the service provider and the user into the downlink signal (column 4, lines 19-25).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the synchronization method taught by Schiff to the system disclosed by Adiwoso. The motivation would have been to enable multiple users to transmit upstream to the satellite on the same frequency (Schiff: column 3, lines 1-5).

Claim 7 is rejected on the same grounds as claims 3 and 4.

Claim 8 is rejected on the same grounds as claim 4.

Referring to claim 17, Adiwoso discloses a system of claim 1, wherein said request from said user comprises a request for video on demand service (column 3, lines 43-48).

Claim 18 is rejected on the same grounds as claim 17.

2. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adiwoso, Schiff, and Saunders as applied to the claims above, and further in view of Hreha.

Referring to claim 9, Adiwoso, Schiff, and Saunders do not disclose a system of claim 1, wherein said system is configured to communicate in accordance with digital video broadcasting return channel system.



Art Unit: 2424

In an analogous art, Hreha teaches a system of claim 1, wherein said system is configured to communicate in accordance with digital video broadcasting return channel system (column 3, lines 34-42).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the DVB-RC standard taught by Hreha in the system disclosed by Adiwoso, Schiff, and Saunders. The motivation would have been to use a public signaling standard (column 3, lines 34-42).

Claim 10 is rejected on the same grounds as claim 9.

3. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adiwoso, Schiff, and Saunders as applied to the claims above, and further in view of Setoyama.

Referring to claim 11, Adiwoso, Schiff, and Saunders do not disclose a system of claim 1, wherein said downlink direction transmission rate is one of 54 Mbit/s, 81 Mbit/s and 108 Mbit/s.

In an analogous art, Setoyama teaches a system of claim 1, wherein said downlink direction transmission rate is one of 54 Mbit/s (column 1, lines 39-41 and 46-51), 81 Mbit/s and 108 Mbit/s.

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the 54 Mbit/s transmission rate taught by Setoyama in the system disclosed by Adiwoso, Schiff, and Saunders. The motivation would have been to fit more data into the stream.

Art Unit: 2424

Claim 12 is rejected on the same grounds as claim 11.

Referring to claim 13, Adiwoso, Schiff, and Saunders do not disclose a system of claim 1, wherein a bandwidth of a transmitter onboard said satellite is a multiple of 27 MHz.

In an analogous art, Setoyama teaches a system of claim 1, wherein a bandwidth of a transmitter onboard said satellite is a multiple of 27 MHz (column 1, lines 39-41 and 46-51).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the 27 MHz bandwidth taught by Setoyama in the system disclosed by Adiwoso, Schiff, and Saunders. The motivation would have been to fit more data into the stream.

Claim 14 is rejected on the same grounds as claim 13.

Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adiwoso, Schiff, and Saunders as applied to the claims above, and further in view of Sharon.

Referring to claim 15, Adiwoso discloses a system of claim 1, further comprising: wherein said network controller performs control operations and verifies at least one of an identity and a profile of said user (column 4, lines 48-53; column 9, lines 57-65).

Adiwoso, Schiff, and Saunders do not disclose a system with a regenerator, positioned on said satellite, that performs multiplexing and at least one of cross-connecting and broadcasting channels to different coverage zones.

In an analogous art, Sharon teaches a system with a regenerator, positioned on said satellite, that performs multiplexing and at least one of cross-connecting and broadcasting channels to different coverage zones (column 4, lines 31-39).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the repeater for adding zone coverage taught by Sharon to the system disclosed by Adiwoso, Schiff, and Saunders. The motivation would have been to enable coverage of multiple zones (or areas) thereby decreasing the need to launch a satellite for each area, therefore saving money (Adiwoso: figure 2; column 6, lines 20-30).

Claim 16 is rejected on the same grounds as claim 15.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin E. Shepard whose telephone number is (571) 272-5967. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2424

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JS

/Annan Q Shang/  
Primary Examiner, Art Unit 2424